

MONITORING PROGRAMS

STICKY TRAPS

Formosan subterranean termites swarm annually from well-established colonies each April through July. This is the natural process by which the Formosan subterranean termite reproduces and establishes new colonies. Louisiana Department of Agriculture & Forestry personnel from seven districts have monitored 64 sticky traps locations across the state since 2003. These traps are checked once a week throughout the months of April, May and June. A better understanding of the mechanisms regulating Formosan termite flights could lead to better control, treatment and monitoring measures in the future.

GROUND BOARDS

All termite castes are mobile throughout the termite's life. Even reproductives freely move from one feeding site to another. As a result of this mobility, there appears to be no permanent central nest area. On any given day reproductives, eggs and/or very young termites might be found in the different sites occupied by a colony. Termites living within their food resource are free to move from one location to another within the network of galleries inside the colony and connecting the various food resources identified by their nestmates.

The colony is thought to concentrate its activity in different locations at different times. Termite activity might be concentrated in one section of their feeding range at one point, but days or weeks later might shift to another section.

When searching for food, termites follow chemical and moisture gradients in the soil, as well as physical guidelines such as roots, abandoned insect and earthworm tunnels, foundation elements, and cracks or crevices in the soil profile. Termite foraging activity in soil usually is confined to areas of adequate moisture and moderate temperature.

Using this understanding of the termite's movements, LDAF technicians monitor ground boards once a month throughout the entire year. The study of the termite's foraging patterns can help establish new treatment plans to decrease population of Formosan subterranean termites.

TREE TREATMENT PESTICIDE APPLICATION

The proper amount of pesticides must be applied to an infested tree to decrease the termite population. A maximum of five gallons of liquid pesticide formulations is applied within each tree. The proper application of pesticides helps kill the Formosan subterranean termites in the established colony.

Swab samples have been taken from random trees at more than 400 treatment areas throughout the state. The LDAF monitors applications to make sure they were done properly and according to standards.

TREE TREATING PROTOCOL

More than 165,000 trees have been treated in Louisiana since the inception of the Formosan Termite Initiative. Proper treatment protocol has been approved by the Louisiana State Forestry Association. The treatment protocol ensures that all treated trees are given the necessary treatments needed to achieve maximum control of

Formosan subterranean termite. Trees on all public right-of-ways, parish, city, state properties, schools, cemeteries and recreational facilities are eligible for treatment. LDAF personnel have certified that all trees treated in the treatment areas are certified for correct overall drilling protocol.

WATER

It is of the utmost importance that the Formosan Termite Initiative considers all avenues to assure that the tree treatments are done in an environmentally safe manner. We take all measures necessary to prevent any off-target applications and run-offs.

The Formosan Termite Initiative has designated 30 different waterway locations to pull water samples after each massive tree treatment and subsequent heavy rainfall. To date, over 200 water monitoring samples have been taken and all results have been negative for misapplications of pesticides resulting from the Formosan Termite Initiative Tree Treatment Program.